

IN THE ABSTRACT:

Please cancel the current abstract and insert the following.

-- An alignment apparatus which generates a driving force between a plate-like movable element and a stator facing the movable element to control alignment of the movable element includes movable element magnets which are arrayed in a plate-like plane of the movable element in accordance with an array cycle and are magnetized in predetermined directions, stator coils which are arrayed at intervals corresponding to the array cycle, and a current controller which supplies control currents having phase differences to each pair of adjacent ones of the stator coils to generate a driving force for driving the movable element between the movable element magnets and the stator coils facing the movable element magnets. The stator coils, formed by stacking three pairs of the first and second layers, generate translational driving forces with three degrees of freedom and rotational driving forces with three degrees of freedom between the movable element magnets and the stator coils of each layer facing the movable element magnets on the basis of the control currents. --